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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/030,532	05/20/2002	Rolf Hartung	EF377398953US	4148

21003 7590 06/04/2009  
BAKER BOTTS L.L.P.  
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44TH FLOOR  
NEW YORK, NY 10112-4498

EXAMINER
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KEENAN, JAMES W

ART UNIT	PAPER NUMBER
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3652

NOTIFICATION DATE	DELIVERY MODE
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06/04/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DLNYDOCKET@BAKERBOTTS.COM

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/030,532	HARTUNG, ROLF	
	<b>Examiner</b>	<b>Art Unit</b>	
	James Keenan	3652	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2009.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 17, 18, 21, 22, 25, 26, 28 and 31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 17, 18, 21, 22, 25, 26, 28 and 31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

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1. The amendment filed 2/12/09 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the recitation that the cooling plate, heating plate, and loading station are disposed “in a row (e.g., parallel to the rails ...)”, as set forth in par. 21. Figure 1 as originally filed does not show sufficient detail such that one could conclude with any degree of certainty that the heating and cooling plates and the loading station are disposed in a row parallel to the rails.

Applicant is required to cancel the new matter in the reply to this Office Action.

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 17, 18, 21, 22, 25, 26, 28, and 31 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 17, line 13, the recitation of “said fork” lacks antecedent basis, and last line, the claim ends with the recitation “and wherein”, making it appear as if applicant intended to add further limitation(s) to the claim .

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 17, 18, 21, 22, 25, 26, 28, and 31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kakehi (US 4,664,578) in view of Parodi et al (US 5651,823), both previously cited.

Kakehi shows a wafer handling apparatus configured to place wafers from cassettes 40 disposed on a loading station 31 directly into a wafer processing vacuum chamber 10 having a wafer holding device 12, comprising “external” handling device 51 having a wafer holding section 50, the external handling device disposed outside of the vacuum processing chamber for transferring wafers between the cassettes and the processing chamber, and “internal” handling device 13 within the processing chamber, the internal handling device inherently provided with a “transverse guide”, as broadly and indefinitely claimed, and arranged in a mount on the guide to directly receive a wafer from the external handling device and to move wafers between the wafer holding device and back to the external handling device, wherein the cassette is disposed on the loading station outside of the processing chamber, and the chamber and the external handling device are surrounded by an enclosure.

Kakehi does not show the vacuum processing chamber to include heating and cooling stations disposed one in front of the other. Kakehi also does not show the internal handling device to move with two degrees of freedom. Finally, it is not clear if the external handling device includes grippers.

Takehi does, however, show the vacuum processing chamber to include a horizontally movable turntable 12 operating in conjunction with the internal handling device 13 such that the wafers move through the chamber in two degrees of freedom.

It therefore would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Takehi by substituting the separate movements of the wafer holding device and the internal handling device with a stationary holding device and an internal handling device movable with two degrees of freedom, as this would simply be an alternate equivalent means of moving wafers through the chamber in two degrees of freedom (i.e., the internal handling device would possess both the vertical movement thereof as well as the horizontal (lateral) movement of the turntable, and the turntable would simply be a plurality of fixed stations to which the internal handling device would move).

Further, Parodi shows, as noted in previous Office actions, a wafer handling apparatus including cassettes disposed on loading stations 19, 20 outside of processing chamber 17, heating and cooling stations 124, 126, 128 disposed "one in front of the other" in the processing chamber, "external" handling device 13 having grippers 14, "internal" handling device 208 with transverse guide 324, and enclosure 11 surrounding the processing chamber and the external handling device. Since the cooling station is between the heating stations, it is considered to be "in front of" at least one of the heating plates, depending on which direction the term "front" is associated.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have also modified the apparatus of Takehi by providing the processing

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chamber with heating and cooling stations disposed one in front of the other and by utilizing grippers on the external handling device, as shown by Parodi, as these would merely be art recognized design expediciencies in a similar wafer processing environment, the use of which in the apparatus of Kakehi would neither require undue experimentation nor produce unexpected results.

6. Applicant's arguments filed 2/12/09 have been fully considered but they are not persuasive.

Applicant argues that combining the table 12 with the elevator 13 in Kakehi does not result in two degrees of freedom of movement of the elevator. However, the table rotates in a horizontal plane so that, in conjunction with the vertical movement of the elevator, multiple wafer pairs can be placed on the table for processing. What the examiner's modification proposes is combining the single degree of freedom movements of the elevator (vertical) and table (horizontal) into a two-degree of freedom movement (horizontal and vertical) of the elevator so that the table would simply be a stationary platform with a plurality of fixed processing stations to and from which the two-degree of freedom elevator would transfer wafers. Applicant further argues that since the table is used to hold wafers during processing, it would not also transfer the wafers to a holder for processing. However, the examiner is not proposing to modify the table (holder) so that it transfers wafers, but rather that the elevator combines the single degree of freedom movements of two separate elements into one element having two degrees of freedom of movement and one stationary element.

Finally, applicant argues that neither reference shows or suggests the cooling plate in front of the heating plate. However, as noted above, Parodi shows the cooling plate in a line between the heating plates. Therefore, regardless of which direction “in front of ” is considered to be (which applicant does not specify), the cooling plate is in front of one or the other of the heating plates.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Keenan/  
Primary Examiner  
Art Unit 3652

jwk  
6/01/09